

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1. – 5. (*Canceled*).

6. (*Previously presented*) A device for damping oscillations of a combustion chamber comprising:

at least one resonator structured and arranged to dampen vibrations being connected to a pre-chamber,

wherein the pre-chamber is connected to the combustion chamber to dampen vibrations via at least one passage channel.

7. (*Previously presented*) The device of claim 6, wherein the combustion chamber adjoins an injection head having at least one injection element.

8. (*Previously presented*) The device of claim 7, wherein the injection head conducts a fuel flow into the combustion chamber.

9. (*Previously presented*) The device of claim 8, wherein the pre-chamber is arranged upstream of the at least one injection element.

10. (*Previously presented*) The device of claim 8, wherein the pre-chamber is arranged an area of the at least one injection element.

11. (*Previously presented*) The device of claim 6, wherein the pre-chamber is in fluid connection with a fuel flow.

12. (*Previously presented*) The device of claim 6, wherein the at least one passage channel is part of an injection element.

13. (*Previously presented*) The device of claim 6, wherein the combustion chamber is part of a rocket engine.

14. (*Previously presented*) A system for damping oscillations, the system comprising:

a combustion chamber;
an injection head arranged upstream of the combustion chamber;
a pre-chamber arranged upstream of the injection head; and
at least one resonator structured and arranged to dampen vibrations of the combustion chamber and comprising one of:

an opening communicating with the pre-chamber; and
an opening communicating with an open area of the injection head.

15. (*Previously presented*) The system of claim 14, wherein the combustion

chamber comprises an outlet arranged opposite the injection head.

16. *(Previously presented)* The system of claim 14, wherein the opening communicating with the pre-chamber comprises a circumferential opening.
17. *(Previously presented)* The system of claim 14, wherein the at least one resonator is annular shaped.
18. *(Previously presented)* The system of claim 14, wherein the at least one resonator comprises a sleeve which extends into the open area of the injection head.
19. *(Previously presented)* The system of claim 14, wherein the at least one resonator comprises a sleeve oriented along a direction of gas flow and which extends into the open area of the injection head.
20. *(Previously presented)* The system of claim 14, wherein the at least one resonator comprises a plurality of sleeves at least one of oriented along a direction of gas flow and extending into the open area of the injection head.
21. *(Previously presented)* The system of claim 14, wherein the at least one resonator comprises a radially oriented opening communicating with the pre-chamber.
22. *(Previously presented)* The system of claim 14, wherein the at least one resonator comprises a plurality of radially oriented openings communicating with the pre-

chamber.

23. *(Previously presented)* The system of claim 14, wherein the at least one resonator comprises a radially oriented opening communicating with the open area of the injection head.

24. *(Previously presented)* The system of claim 14, wherein the at least one resonator is one of:

integrally formed in a side wall of the pre-chamber;

integrally formed in an end wall of the pre-chamber; and

integrally formed in a side wall of the injection head.

25. *(Previously presented)* A system for damping oscillations of a rocket engine, the system comprising:

a combustion chamber;

an injection head arranged upstream of the combustion chamber;

a pre-chamber arranged upstream of the injection head; and

at least one resonator structured and arranged to dampen vibrations of the combustion chamber and comprising one of:

an opening communicating with the pre-chamber; and

an opening communicating with an open area of the injection head.